



UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/043,171

03/12/98

MCLAUGHLIN

S

36-1136

EXAMINER

WM02/0328

AZAD, A

ART UNIT

PAPER NUMBER

2641

DATE MAILED:

03/28/01

NIXON & VANDERHYE
1100 NORTH GLEBE ROAD
8TH FLOOR
ARLINGTON VA 22201-4714

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/043,171

Applicant(s)

MCLAUGHLIN ET AL.

Examiner

ABUL K. AZAD

Art Unit

2641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-11 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-5,7-11 and 15 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on January 8 and 10, 2001.
2. claims 1-11 and 15-17 are pending in this action. Claim 14 has been canceled.
Claim 1 has been amended. Claims 16 and 17 have been newly added.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not described in the claim, which synthesis apparatus arranged to perform the method of claim 1.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-5, 7-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Masaki (EP 0 385 444).

Art Unit: 2641

As per claim 1, Masaki teaches, "a method of generating a cyclic sound waveform corresponding to a sequence of substantially similar cycles," comprising the steps of:

"(a) generating a cyclical sound waveform sample" (col. 2, line 46 to col. 3, line 1);

"(b) generating a successive cyclical sound waveform sample from said cyclical sound waveform sample and data defining the transformation followed by said cycles in the temporal vicinity of said cyclical sound waveform sample" (col. 4, lines 28-43);

"(c) designating said successive cyclical sound waveform sample as a cyclical sound waveform sample and repeating (b)" (col. 4, lines 36-43);

"(d) repeating (c) a plurality of times to generate a sequence of said successive cyclical sound waveform samples corresponding to a plurality of said cycles" (col. 4, lines 36-43);

"(e) outputting the samples of said sequence to generate a waveform" (col. 4, lines 44-47);

As per claim 3, Masaki teaches, "in which said data defining said definition does so by reference to a predetermined reference waveform sequence" (col. 2, lines 46-55)

As per claim 4, Masaki teaches, "in which said reference waveform sequence comprises a stored speech waveform" (col. 2, lines 46-55)

As per claim 5, Masaki teaches, "in which said steps (a) and (b) comprise generating a plurality of values representing said waveform sample values as a point in

Art Unit: 2641

a multidimensional space in which corresponding portions of successive said cycles are substantially superposed" (Abstract, col. 2, lines 46 to col. 4, lines 47).

As per claim 7, Masaki teaches, "in which a given successive waveform sample is derived in accordance with data from a point on said reference waveform sequence at a position within a said cycle which corresponds to that of said given successive waveform sample, and at least one other point on said reference waveform sequence offset in time therefrom" (col. 22, line 39 to col. 23, line 12).

As per claim 8, Masaki teaches, "in which said step (b) comprises calculating said transformation from a set of stored waveform values" (col. 4, lines 24-52).

As per claim 9 and 11, Masaki teaches, "in which the initial performance of said step (a) to initial synthesis of said waveform comprises a step of selection of an initial value which differs from a previous initial value selected on a previous synthesis of said waveform." (col. 35, lines 6-18).

As per claim 10, Masaki teaches, "in which said step comprises applying a pseudo random number generation algorithm to select said value" (col. 19, lines 29-57).

As per claim 15, Masaki teaches, "synthesis apparatus arranged to perform the method of claim 1" (col. 2, line 46 to col. 3, line 47).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masaki as applied to claim 1 above.

As per claim 2, Masaki does not teach "said waveform comprises voiced speech." However, Masaki teaches wave fundamental waveform database. It would have been obvious to one of ordinary skill in the art at the time of the invention to generate a voiced speech waveform so as to create naturally sounding speech.

Response to Arguments

9. Applicant's arguments with respect to claims 1-5, 8 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 6, 16 and 17 are allowed over the prior art of record.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(703) 305-3838**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **William Korzuch**, can be reached at **(703) 305-6137**.

Any response to this action should be mailed to:

Commissioner for Patents

Washington, D.C. 20231

Or faxed to:

Application/Control Number: 09/043,171
Art Unit: 2641

Page 6

(703) 305-9508

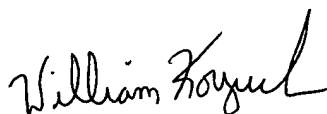
(For informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is **(703) 305-4700**.

Abul K. Azad

March 26, 2001


WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600